

Super-Genie Water Purification Stations

A complete range of high-throughput systems with pure water production up to 7000 L daily



The Best Pure Water Solution for Your Applications

Centralized

The Super-Genie system is designed to help you meet the most challenging requirements. More and more laboratories are changing their needs with the development of science and technology. There is an increasing requirement for high purity and large volume water to support a wide range of research applications.

As a part of this push, RephiLe recognizes that suitable equipment and water purification solution to meet the changing needs is a challenge. The system is designed to produce various types of water from a few dozens of liters of water for a single end-user up to several thousand liters for a laboratory facility per day of pure and ultrapure water.

Flexible

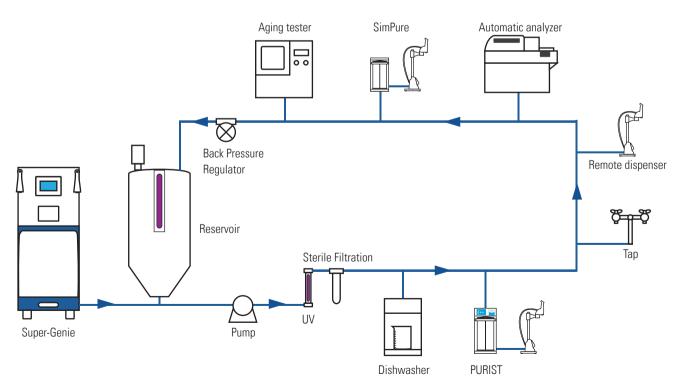
Following features contribute the flexibility of the Super-Genie system. Pure and ultrapure water can be delivered with dispensers directly from the system. No need to have another ultrapure water system to get ultrapure water, which makes it convenient and money-saving.

Modular design makes the installation easier and can be adapted to the change as needs develop. A small footprint ensures the compact system occupies less lab space. A wide range of accessories and options can be customized to meet specific needs in your lab.

Stable

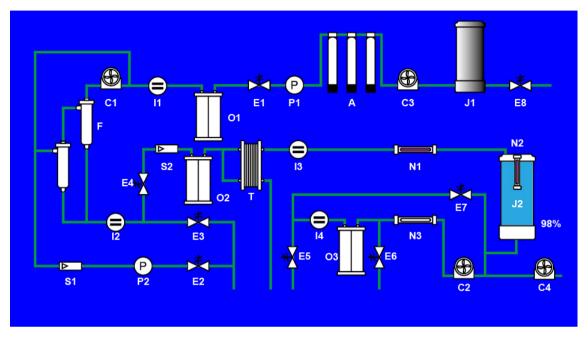
The Super-Genie systems are specially designed to produce pure water and ultrapure water directly from tap water with consistent and reliable water quality that matches the requirements in applications.

In many applications, pure water is an essential reagent that requires to be stable and reliable. Rely on the decades of hands-on expertise in the most advanced water purification technologies, RephiLe provides systems in high stability and excellent performance.



Super-Genie system is designed to be integrated into a centralized water purification system and intelligent control of distribution pump, UV lamp as well as other functions.

Centralized and Comprehensive



Α	Prefiltration	E6	EDI Product Valve	N2	Tank UV Lamp
C1	RO Booster Pump	E7	UP Recirculation Valve	N3	Dual Wavelength UV Lamp
C2	UP Circulating Pump	E8	Feed Water Valve	01	P Pack
C3	Feed Water Pump	11	Feed Water Conductivity Cell	02	AT Pack
C4	Pure Water Distribution Pump	12	RO Water Conductivity Cell	03	U Pack
E1	Inlet Valve	13	EDI Water Resistivity Cell	P1	Feed Water Pressure Gauge
E2	RO Reject Valve	14	UP Water Resistivity Cell	P2	RO Reject Pressure Gauge
E3	RO Drain Valve	J1	Feed Water Reservoir	S1	RO Drain Flow Meter
E4	RO Product Valve	J2	Pure Water Reservoir	S2	RO Product Flow Meter
E5	UP Product Valve	N1	EDI UV Lamp	Ţ	EDI Module

Traceability meets your requirements

As water is a critical diluent that used most commonly in laboratories, the Super-Genie provides enhanced data management control that users can trace up to two years of historical information. The Super-Genie makes traceability of all system events easy.

The most integrated centralized system

The Super-Genie purification system is created to serve as a core workstation generating purified water for a single lab facility or several labs.

The Super-Genie controls and monitors the whole water purification network, thus ensures 100% reliability from the beginning.

Advanced user interface

With the growing requirements of the end-users in the trend toward connectivity, the Super-Genie is designed to meet the new need. Users can easily view and control all details needed for daily operation and water quality parameters in an advanced large color touch screen.

Historical data can be transferred via the USB port when needed.

Flexible and Easy



Easy and convenient delivery of water

The Super-Genie makes it easy for users when they work with a variety of applications requiring both pure and ultrapure water. Users can dispense pure and ultrapure water from the dispensers on the system at their fingertips, and can place the dispensers they wanted and choose the volume they needed.

Easy maintenance

- The Super-Genie is designed to be easy to maintain.
- Optional spray ball for tank cleaning.
- Cartridges at the front of the system, making them accessible easily and quickly.
- Emergency bypass can be switched quickly to bypass polished via polishing cartridge to maintain water production for hours.
- Easy mobility due to locking wheels making installation and maintenance convenient.
- Integrated 100 L reservoir, upgradable for appropriate volume needs.
- All in one design can optimize use of lab space and have a high degree of integration.



Touch-N-Control

The Super-Genie's integrated GUI, controls booster pump, prefiltration, tank sanitization module, leak protector, distribution and delivery pump, making operation easy. The centralized control ensures that the purified water is delivered to points of use throughout the laboratory seamlessly. Several key design components ensure water quality in the distribution loop:

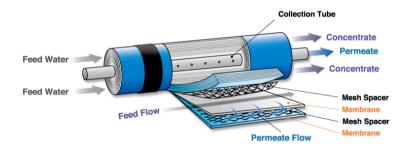
- The Super-Genie controls the system and peripheral devices all from its touch screen.
- Booster pump to maintain the feed flow and pressure in low.
- Prefiltration to keep the system working at optimal conditions.
- Sanitization module to keep bacteria in the storage tanks at a low level.
- All in one design can optimize use of lab space and have a high degree of integration.
- Leak protector incorporated to shut the feed water off to prevent leakage.
- Distribution pump to deliver water needed during the delivered time period.

Cutting-edge Technologies Ensure Stability

RephiLe incorporates optimal purification technologies to produce the highest water purity. The Super-Genie keeps running costs low with these technologies and provides consistent reliable quality ensuring complete peace of mind.

All-in-one pretreatment pack

Pretreatment packs combine several purification media in one housing for easy and robust removal of contaminants including particles, chlorine, most residual oxides and organic molecules to protect RO membranes and other downstream devices.





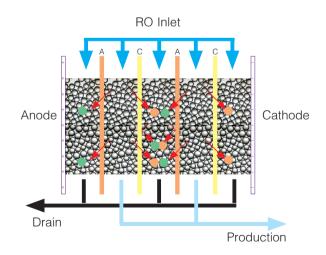
Outstanding reverse osmosis

Integrated RO removes 95 - 99% of ions and more than 99% of large molecules, microorganism and particles. There is no need for user to set additional cleaning procedures as the pre-rinsing program starts automatically once a new RO membrane is installed. RO allows the system to maintain a constant product flow rate by a fully automatic rinsing cycle, and to provide constant quality of purified water and decrease water consumption.

Best in class EDI module

The EDI provides delivery superior quality pure water consistently and reliably to reduce running costs.

- The EDI module uses electrodeionization to remove the remaining ions, and further reduce the content of organic compounds.
- Ion exchange resins are continuously regenerated by an electric field. No hazardous chemical regeneration or costly resin replacement is needed.
- EDI module has a high degree of automation and minimal electricity consumption by using the equivalent of the energy.

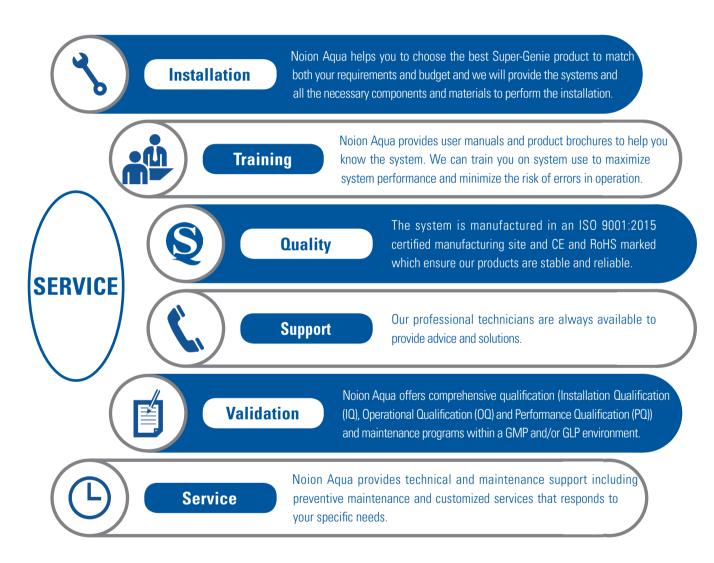


Ultraviolet (UV) lamp and final filtration

Built-in UV light oxidation technology to ensure low bacteria level. An optional $0.2 \, \mu m$ or ultrafiltration filter provides final filtration before ultrapure water is delivered.

Excellent Service and Support

With rich experience in the development of purification water systems, RephiLe is a partner you can count on. RephiLe offers a range of service support including installation, technical assistance, maintenance and qualification support which maximizes system performance and meets specific users' needs.



The Super-Genie System Water Specifications

The Super-Genie system is designed to meet or exceed requirements as described by ASTM, CAP, CLSI and ISO 3696 / BS 3997 and also complies with the Purified Water requirements from the European and U.S. Pharmacopoeia (Type II water); and by ASTM, CLSI, CAP, and ISO for ultrapure water.

Feed water requirements

	Super-Genie Super-Genie	
Tap water	Municipal water, TDS < 1000 ppm (2000 μS/cm)	
Temperature	5 - 35 ℃	
Feed water pressure	30 - 90 psi (2 - 6 bar)	
Flow rate	> 10 L/min @ 2 bar	
TOC	≤1 ppm	
Hardness (as CaCO3)	< 100 mg/L (< 100 ppm)	
Free chlorine	< 1.0 mg/L (< 1.0 ppm)	
Langelier saturation index (LSI)	< 0.3	

Product water specifications

	Super-Genie G	Super-Genie U	Super-Genie E	Super-Genie R
Water produced	Type II & ultrapure water	RO & ultrapure water	Type II water	RO water
Pure water				
Production rate (@ 25℃)	Type II: 30/60/125/250 L/hr	RO water: 50/150/300 L/hr	Type II: 30/60/125/250 L/hr	RO water: 50/150/300 L/hr
Dispensing	5 L/min	5 L/min	5 L/min	5 L/min
Resistivity (@ 25°C)	$> 5 \text{ M}\Omega\text{-cm}$ (typically 10 - 15 M $\Omega\text{-cm}$)	> 0.05 MΩ·cm (< 20 μS/cm)	$> 5 \text{ M}\Omega \cdot \text{cm}$ (typically 10 - 15 M $\Omega \cdot \text{cm}$)	> 0.05 MΩ-cm (< 20 µS/cm)
TOC*	< 30 ppb	N/A	< 30 ppb	N/A
Ultraure water				
Dispensing	5 L/min	5 L/min	N/A	N/A
Resistivity (@ 25°C)	18.2 MΩ·cm	18.2 MΩ·cm	N/A	N/A
TOC*	< 5 ppb	< 5 ppb	N/A	N/A
Particles in ultrapure water (> 0.2 µm)	< 1/ml **	< 1/ml **	N/A	N/A
Microorganisms	< 0.1 cfu/ml **	< 0.1 cfu/ml **	N/A	N/A
Pyrogens (endotoxins)	< 0.001 Eu/ml ***	< 0.001 Eu/ml ***	N/A	N/A

^{*} Product water quality may vary due to local feed water conditions.

Dimensions and weights

	Super-Genie G	Super-Genie U	Super-Genie E	Super-Genie R
Length x Depth x Height		with tank: $56 \times 88 \times 138$ cm (22.0 \times 34.6 \times 54.3 in) without tank: $56 \times 61 \times 138$ cm (22.0 \times 24.0 \times 54.3 in)		
Weight	< 160 kg	< 140 kg	< 160 kg	< 140 kg
Voltage / Frequency		220 V ± 10%, 50 / 60 Hz		
Intensity				
Power / Amperage	< 1500 W / < 7 A	< 1000 W / < 5 A	< 1500 W / < 7 A	< 1000 W / < 5 A

^{**} with a 0.2 μm or ultrafiltration filter.

^{***}with an ultrafiltration filter.

Ordering Information

Description	Voltage
Super-Genie G 30 Water System	220 V/50 Hz
	220 V/60 Hz
Super-Genie G 60 Water System	220 V/50 Hz
	220 V/60 Hz
Super-Genie G 125 Water System	220 V/50 Hz
	220 V/60 Hz
Super-Genie G 250 Water System	220 V/50 Hz
	220 V/60 Hz
Super-Genie U 50 Water System	220 V/50 Hz
	220 V/60 Hz
Super-Genie U 150 Water System	220 V/50 Hz
	220 V/60 Hz
Super-Genie U 300 Water System	220 V/50 Hz
	220 V/60 Hz
Super-Genie E 30 Water System	220 V/50 Hz
	220 V/60 Hz
Super-Genie E 60 Water System	220 V/50 Hz
	220 V/60 Hz
Super-Genie E 125 Water System	220 V/50 Hz
	220 V/60 Hz
Super-Genie E 250 Water System	220 V/50 Hz
	220 V/60 Hz
Super-Genie R 50 Water System	220 V/50 Hz
	220 V/60 Hz
Super-Genie R 150 Water System	220 V/50 Hz
	220 V/60 Hz
Super-Genie R 300 Water System	220 V/50 Hz
	220 V/60 Hz

